

# MULTILITE™

Multirole HF Tactical Antenna System  
TYPE MTA, Frequency Range 1.6 to 30 MHz

## Features:

- Lightweight
- Multi configuration
- Short, medium, and long range communications
- Rapid deployment
- Compact
- Tactical
- Used by NATO



MULTILITE™ antenna system weighs only 5.4 kg (11.9 lbs) yet has exceptional strength and durability by utilizing kevlar material which incorporates copper wire for radiation efficiency. MULTILITE™ is a key element in a communication system since its deployment can be controlled by the operator himself to suit all operational requirements. It comprises of seven separate antennas for seven roles:

- **Horizontal Dipole** - Omnidirectional at short or medium range, broadside at long range.
- **Sloping Dipole** - Omnidirectional for short / medium range.
- **Bent Dipole** - Low frequency ground wave.
- **Inverted L** - Low frequency ground wave.
- **Base Feed Vertical** - Omnidirectional for ground and long distance sky wave.
- **Sloping V** - Directional medium range.
- **Inverted V** - Inverted V long range directional.

Any one of the seven configurations can be rapidly deployed from the carry bag by an operator with the minimum of training in less than ten minutes. Any available means of support such as towers, buildings, and vehicles or masts can be used to support the antenna since all radiating elements are fully insulated with Kevlar.

The key design feature of the MULTILITE™ is the compartmentalized layout of the carry bag which ensures that all parts of the antenna system can easily be checked before mission deployment or on site configuration change. A further design feature offers easy tactical concealment of the antenna by use of thin wires and blackened metal parts. Such is its flexibility that even loss or damage of certain components does not prevent a usable antenna being erected. Although designed primarily for tactical defense applications. MULTILITE™ may also be used by emergency services, and other organizations who require fast, reliable communications.

# Antenna Specifications

## Type MTA General Specifications

ELECTRICAL	
Frequency Range:	1.6 to 30 MHz
Coverage:	0 to 50 km - Short Range 50 to 800 km - Medium Range 800+ km - Long Range
Input Impedance:	Nominal 50 ohm
Power:	Insulation - 50/70 ohm, 500 W Balun - 50/600 ohm, 200 W Resistors - 300 ohm, 50 W
Polarization:	Horizontal or Vertical

*Note: This antenna has been modified for Special Opns down to the MTA-XL for "extra light" at 4.5 lbs. Provides 500 mi, omni, NVIS, 2 to 30 MHz capability.*

MECHANICAL	
Materials:	Cords - 8 plait polyester prestretched. Conductor - PVC coated copper braid with Kevlar 49 core. Resistors - Wire wound vitreous enamelled. Balun / Insulation - Polythene moulding
Connector:	Type C
Storage:	Nylon bag
Weight:	(Stowed) 5.37 kg (11.81 lb)
Dimensions:	(Stowed) 368 x 254 x 140 mm (14.5 x 10 x 5.5 in)

## Typical Configurations

The MTA kit contains all the necessary equipment and components to allow for the rapid development of the following antenna configurations.

Horizontal Dipole	Omnidirectional at short or medium range, broadside at long range
Sloping Dipole	Omnidirectional for short / medium range
Bent Dipole	Low frequency short range
Inverted L	Low frequency ground wave
Base Feed Vertical	Omnidirectional for ground and long distance sky wave
Sloping V	Directional medium range
Inverted V	Long range directional

*Specification subject to change without notice. Please contact C&S Antennas, Inc for latest specification or for further information.*

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.